

ABSTRACT OF THE DISCLOSURE

- An electronic filter operates as a correlator that provides a discrete approximation of an analog signal. The analog to digital conversion is integrated directly approximation calculation. An array of sample and hold circuits or single bit comparators provide outputs to a series of multipliers, the other input of which is a coefficient value of a Fourier series approximation of the desired frequency response. Each of the sample and hold circuits samples sequentially in time and holds its sample until the next cycle. Thus the sample point rotates in time through the array and each new sample is multiplied by a different coefficient. The output of the multipliers is summed for evaluation.
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